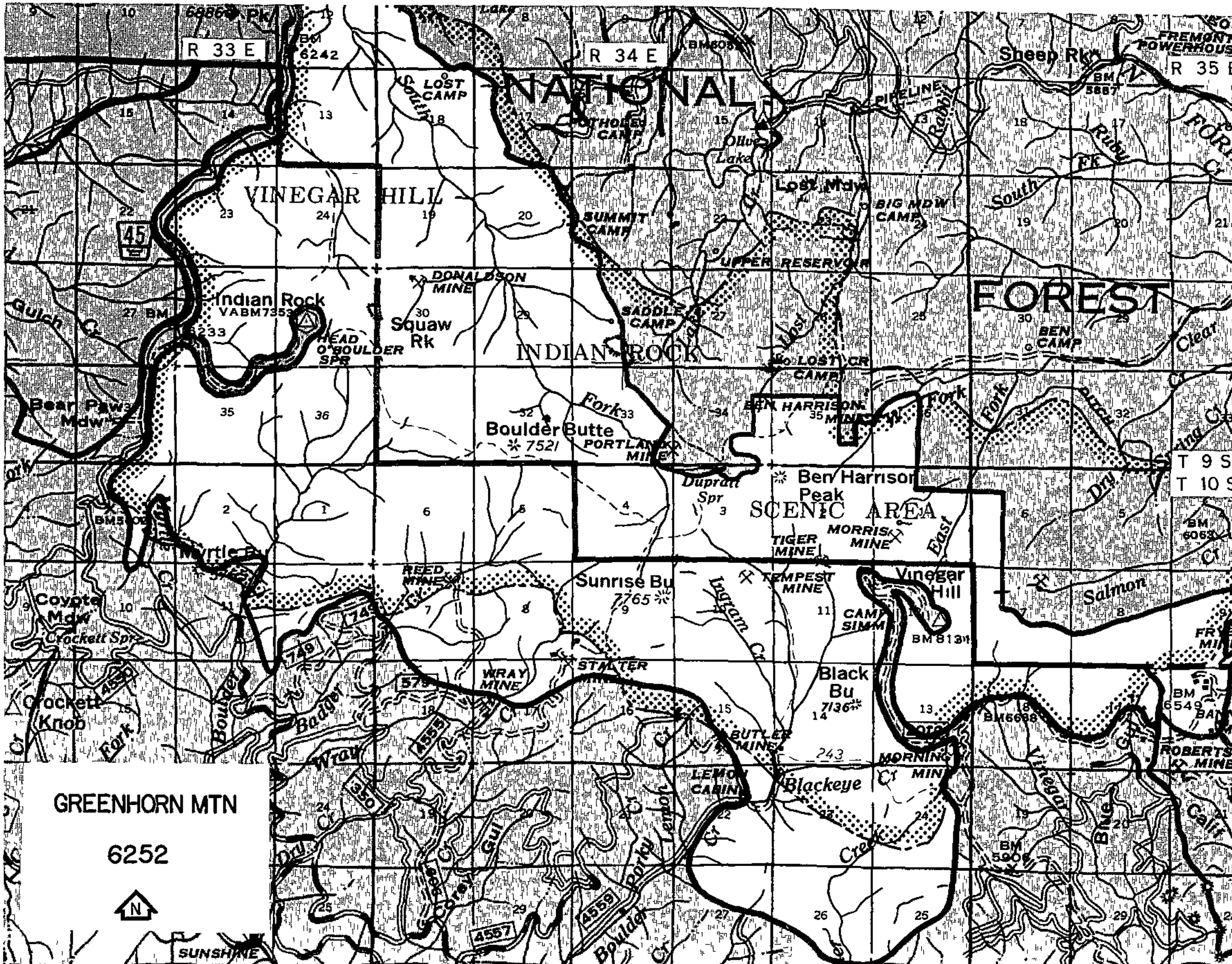
R 33 E
R 34 E
R 35 E
NATIONAL
FOREST
VINEGAR HILL
INDIAN ROCK
SCENIC AREA
LOST CAMP
POTHOLES CAMP
SUMMIT CAMP
SADDLE CAMP
UPPER RESERVOIR
BIG MDW CAMP
Lost Mdw
Olive Lake
PIPELINE
Sheep Rk
FREMONT POWERHOUSE
BEN CAMP
LOST CR CAMP
BEN HARRISON MINE
Indian Rock
VABM7353
HEAD O'BOULDER SPR
Squaw Rk
DONALDSON MINE
Boulder Butte
7521
PORTLAND MINE
Dupratt Spr
Ben Harrison Peak
TIGER MINE
MORRIS MINE
TEMPEST MINE
Vinegar Hill
Sunrise Bu
7765
REED MINE
CAMP SIMM
BM 8131
Black Bu
7136
WRAY MINE
STALTER
BUTLER MINE
LEMON CABIN
MORNING MINE
Blackeye Cr
Creek
Bear Paw Mdw
Myrtle Bu
Coyote Mdw
Crockett Spr
Crockett Knob
ROBERTS MINE
Salmon
South Fk
Clear
Dry
Badger
Wray
Boulder
SUNSHINE
BM 6242
BM 5887
BM 6063
BM 6549
BM 5906
BM 6688
T 9 S
T 10 S
GREENHORN MTN
6252
N

K. GREENHORN MOUNTAIN - 16,197 Acres
(RARE II No. 6252)

1. Description

a History

This area was inventoried during RARE and enlarged in the RARE II inventory. The John Day Planning Unit Environmental Impact Statement and RARE II Environmental Impact Statement designated the area to nonwilderness uses.

b. Location and Access

This area is located along the northern boundary of the Malheur National Forest, in both Malheur and Umatilla National Forests and in both Grant and Baker counties (T. 10 S., R. 34 E. and R 35 E., and T 9 S., R. 33 E., of the Willamette Meridian)

Access consists of a Forest Service arterial road along the western edge of the area, with a local road to a lookout within the area, and two other Forest Service roads into the southern and eastern portions of the area. In addition, numerous unimproved roads lead to the areas perimeters.

c. Geography and Topography

Consisting primarily of alpine and subalpine areas in the Greenhorn Mountains, the highest elevation is 8,100 feet at Vinegar Hill, the lowest is 5,200 feet at the mouth of Black Eye Creek. See Figure C-10

Most of the area, on and near ridgetops, is undulating terrain of open, alpine meadows. Below these ridgetops, however, are sharp breaks in the terrain; particularly to the north, with dramatic, sharp, rock cliffs dropping away to steep drainages below

This area comprises the headwaters of Granite Boulder, Little Boulder, and Big Boulder Creeks, and numerous smaller streams which drain into the John Day River System. The area extends along the divide between the Middle and North Forks of the John Day River, where glacially carved granite meets Columbia Basalt

d. Geology and Soils

A wide variety of rock types are exposed within this area. Permian-age metavolcanic rocks cover much of the Vinegar Hill area, Permian and Triassic-age igneous and sedimentary oceanic rocks are exposed over much of the area; a Jurassic-to-Cretaceous-age intrusive is exposed around Sunrise Mountain; Eocene-to-Oligocene-age tuffaceous sedimentary rocks outcrop in a band east of Granite Boulder Creek, and Miocene-age basalt flows cover most of the southern portion Glacial till covers the head of Granite Boulder Creek and landslide deposits are found on the southeast slope of Vinegar Hill

Most soils consist of a silt loam surface derived from "recent" volcanic ash and a gravelly, cobbly subsoil derived from glacial activity or various bedrocks. Much of the soils occur in glacial troughs and are well drained

Volcanic ash soils are the most productive soils on the Forest. Under natural conditions, these soils have good vegetative and litter cover which protects the soils from wind and water erosion If the vegetative cover and litter are broken up by activities such as logging, livestock trailing, or fire, unacceptable erosion can occur, especially on steep slopes at higher elevations. Eroded areas are difficult to revegetate because of the short growing season and cold soils.

e. Vegetation

This area is 87 percent forested Of the forested portions, 2,900 acres meet the definition of old growth in the Pacific Northwest Region

Vegetation on ridgetops and sideslopes includes meadows of alpine sagebrush, elk sedge, and alpine fescue, as well as stands of whitebark pine and subalpine fir, and spruce bogs Upland flats and north-facing sideslopes support white fir, lodgepole pine, larch, and Douglas-fir, with ground covers of pine-grass, elk sedge, and huckleberry.

f Current Uses

The area is elk summer range and is also used by mule deer during the summer. The area also provides habitat for bear, pine marten, and bobcat as well as numerous smaller mammals The unique alpine habitat provides an opportunity to view uncommon bird life such as pine grosbeak and the northern three-toed woodpecker.

Many of the streams provide trout fishing opportunities and steelhead spawning and rearing habitat Clear Creek is particularly important for chinook salmon production

Big-game hunting and viewing scenery are currently the primary recreational uses of the area, with hunting predominant Other recreational uses include gold panning and recreational prospecting, fishing, hiking, backpacking, bird watching, photography, nature study, wildflower viewing, horseback riding, rock hounding, snowmobiling, cross-country skiing, and ski-touring None of these latter uses are considered "heavy use" at this time. (See Table C-2.) There are several trails traversing the area as well as opportunities for cross-country travel.

The area lies within two grazing allotments Current use averages 1,600 Animal Unit Months annually (Malheur National Forest side only), occurring primarily at lower elevations along the perimeter of the area

Indian Rock Fire Lookout is located on a high point in the interior of the area. This Lookout is staffed each summer

The high-elevation views of grassy, open alpine areas and subalpine trees provide a scenic and unusual contrast from adjacent forested areas. The major attraction of this area, aside from hunting opportunities, is the splendid 360 degree vista available from high-elevation viewpoints

2. Wilderness Capability

a Manageability and Boundaries

Boundaries are formed by logged areas and roads. Logical boundary adjustments would still be likely to cross drainages, there is little opportunity to increase manageability of the area's perimeter An improved boundary would reduce the size of the area Boundary adjustments have already separated the portions of the area, with some of the more obvious impacts (logging) on the area's naturalness.

b. Natural Integrity

The presence of unimproved roads throughout the area is the greatest impact to the natural integrity of the area These two-wheel tracks are particularly disturbing to shallow, eroded soils in the center of the area Motorized vehicle use has been prohibited for 10 years in these areas and the effects are beginning to heal, but their presence is still visible and unnatural to the average visitor.

Mineral developments have also impacted the natural integrity of the area. The most widespread impact (prospecting holes) is also the least apparent The more significant mining impacts are located principally along the southern and eastern portions of the area Some of these mines have removed soil to mineral rock and are quite visible Some mining exploration continues intermittently; other mines have not been used since the 1800's

Recreation and grazing use have made minor impacts on the natural integrity of the area The unimproved roads were used by off-road vehicles in the past Other recreational impacts consist of low-maintenance trails and hunter camps with fire pits, meat racks, etc The latter are easily removed, their impact is minimal.

Grazing use at higher elevations is largely incidental. The most unnatural impact would be the actual presence of cattle. At higher elevations, there is little other evidence of grazing use At lower elevations, grazing use becomes more concentrated, though still not heavy. Here, salting grounds and some evidence of cattle use are noticed.

Fire suppression in the area has had an impact on natural integrity of the north slopes and lower elevation forested area. Vegetative succession has been altered, although it would not be apparent to the average visitor

c. Naturalness

The area shows some evidence of human use and activities, but this remains substantially unnoticeable Overall, the area remains a large, relatively unspoiled tract of land. The most intrusive impacts would be the unimproved roads and mining activity. There is some historic/educational value in the past mining activity.

d Opportunity for Solitude

Topography and vegetation provide a screening effect from activities outside the area However, the size of the area and distance from the perimeter to the core of the area is generally less than three miles. The result is a moderate opportunity for solitude.

e. Primitive Recreation and Challenge

The only recreation facilities available are low standard trails There are outstanding opportunities for outdoor recreation. Opportunity for Primitive recreation, however, is fairly limited by the size and shape of the area. The most challenge is presented to cross-country skiers due to remoteness of the area during winter

f Special Features

Opportunities exist to designate an area of the Malheur and Umatilla National Forests as historic mining district The Greenhorn Area would be included within such a district. Even without such designation, there are opportunities for interpretation, and informal study of historical events and uses. There are prehistoric cultural resources within the area

There are no Threatened or Endangered wildlife species within this area. There is one potential peregrine falcon eyrie site, however, it has not had any historical use and the chance of utilization is marginal There is one Sensitive plant species found here

The area also provides a unique opportunity for scientific study of native plant communities in an alpine and subalpine ecosystem A potential Research Natural Area has been identified within this area, primarily located on the Umatilla National Forest portion

3. Availability for Wilderness

a. Resource Potentials

The area currently provides roaded natural, semiprimitive motorized, and semiprimitive nonmotorized recreational opportunities (See Table C-3) There is a yearly capability of 39,145 Recreation Visitor Days on the area (See Table C-4)

There are 13,200 acres of forested land tentatively suitable for timber management activities. These trees are predominantly mixed conifers with some lodgepole and ponderosa pine They are growing in multistoried stands with an average overstory age of 160 and an average understory age of 60. There is a standing volume of 152.67 million board feet (26.69 million cubic feet) With the use of intensive timber management techniques, 634 thousand cubic feet (3,626 thousand board feet) would be contributed to the annual allowable sale quantity in the first decade The long-term sustained yield capacity from this area would be 752 thousand cubic feet per year.

"Numerous gold-silver lode deposits occur within this granitic intrusive and along its edges." (Gold and Silver in Oregon, Bulletin 61, Brooks and Ramp, State of Oregon Department of Geology and Mineral Industries, 1968.) Some people consider this area to have the best mineral potential of any on the Forest Most of the area has a moderate potential, and part a high potential for gold, silver, and copper lode deposits. It contains approximately 180 mining claims The U S. Geological Survey does not indicate a potential for oil and gas or geothermal resources

b Management Considerations

Indian paint fungus is present and can probably be found in all size classes of true fir Much of the Douglas-fir (especially on rockier, drier soils) is infected with dwarf-mistletoe. Mistletoe patches of varying severity can be found. Root rots of varying degrees can be found, but are not considered a problem.

Due to high amounts of true fir and Douglas-fir in the area, all the timber stands are highly susceptible to tussock moth and the western spruce budworm A western spruce budworm infestation of varying severity is presently in the area. Western pine beetle can be found in the area but is generally confined to a few old-growth ponderosa pine trees of low vigor. Mountain pine beetle outbreaks are now occurring in the overmature and overstocked lodgepole stands.

There is one long-term special use for telephone lines and one 60-acre area withdrawn from mineral entry.

4. Wilderness Evaluation

This area is adjacent to the North Fork John Day River Wilderness. The Strawberry Mountain Wilderness is 25 miles southwest and Monument Rock Wilderness is 25 miles southeast. The alpine and subalpine habitats of this area are also represented within these other wildernesses.

This area is about 15 miles north of Prairie City, Oregon. The two nearest major metropolitan areas are Portland, Oregon, about 280 miles northwest, and Boise, Idaho, about 180 miles east.

There are proponents interested in retaining the wilderness options of the area. The North Fork John Day Wilderness, designated in 1984, includes portions of this original RARE II area.

During the RARE II inventory and evaluation, the area received approximately 1.5 times as many comments opposing wilderness as favoring wilderness

There is a high level of interest concerning the Greenhorn area In recent Forest planning public involvement, it received more comments than any other area on the Forest. These responses also indicated a definite lack of consensus about the wilderness suitability of the area (the responses were 1 2 in favor of wilderness to every 1 opposed). Several responses opposing wilderness designation for this area specifically supported a scenic or backcountry designation.

5. Environmental Consequences

Table C-14 displays the various management area assignments for the area by alternative.

a. Vegetation/Trees

Significant changes in tree sizes, and stand density and composition are expected to occur in all alternatives, except Alternative C-Modified. As this occurs, the affected acres would take on a managed forest appearance. The actual acreage affected by timber harvest would vary between these alternatives Over time, the appearance of the affected forested areas would change to a managed forest. Some old growth will be retained in all alternatives. Additional old growth may be provided within other Management Areas, such as semiprimitive areas

In Alternative C-Modified, little change in the trees is expected; present characteristics would be retained and naturalness overall would be unchanged, except effects of naturally occurring wildfires

b Vegetation/Grass and Shrubs

In Alternatives A, B-Modified, F, I and NC, forage for wildlife and livestock is expected to increase in forested areas when the trees are harvested and thinned The long-term effect on transitory areas should be a gradual decrease in forage production as tree canopies again close and shade the understory. Seeding of introduced forage species will provide higher quality and quantity of palatable plants and change the present composition of forage plants. Native forage species of elk sedge, pinegrass, and brome are also expected to increase in vigor and density as tree canopies are opened and thinning occurs in harvest areas

Forage production is expected to remain at present levels in Alternative C-Modified.

c. Wilderness

All alternatives would have less acreage retained in roadless condition except Alternative C-Modified Consequently, future wilderness consideration, based upon size of area, would be highest under Alternative C-Modified and wilderness consideration would remain a possibility for the Vinegar Hill/Indian Rock Scenic Area under all alternatives until the end of the first decade.

d. Recreation

In all alternatives, the recreation opportunity would be semiprimitive nonmotorized and Scenic Area designation would continue to be the primary recreational opportunity. All alternatives are expected to have similar effects on recreation.

e. Scenery

The high-elevation viewpoints, open alpine areas, and subalpine trees would continue to provide scenic opportunities in all alternatives. In all alternatives except Alternative C-Modified, viewers would see evidence of a managed forest, including clearcuts and shelterwoods on approximately 2,900 acres in the southeast portion of the area Long-term effects on scenery in this area would be less old growth to view, more access roads, and less naturalness

In Alternative C-Modified most of the present scenery would be maintained and no significant changes are foreseen barring a major outbreak of insects, diseases, or catastrophic fire

f. Wildlife

Alternative C-Modified would retain the largest acreage of old growth and the most wildlife snags, due to old growth under other management areas such as Scenic Area and Semi-Primitive Non-Motorized. Management standards would adequately protect key habitat of all wildlife under all alternatives.

g Water, Riparian, Fisheries

Riparian vegetation, anadromous fish habitat, and water quality of streams which flow into the Middle Fork John Day River would be affected most by Alternatives A, B-Modified, F, I, and NC, and least by Alternative C-Modified. Management standards would adequately protect these resources under all alternatives; however, accessibility and use would increase as a result of timber harvest and access roads. In all alternatives except Alternative C-Modified, upper portions of streams within the manageable boundaries would be unaffected while some lower portions would be impacted by harvest activities.

h. Cultural Resources

All alternatives will protect cultural resources through the application of laws and management standards Alternatives which allow timber harvest, Alternatives A, B-Modified, F, I, and NC, have the greatest risk of inadvertent damage to the resource as well as the greatest opportunity for resource discovery.

i. Soils

All alternatives will protect the soil resource through application of management standards The alternatives which allow timber harvest, Alternatives A, B-Modified, F, I and NC, have the greatest risk of inadvertent damage to the resource.

TABLE C-14
GREENHORN MOUNTAIN MANAGEMENT BY ALTERNATIVE
(Acres)

Management Area	NC[1/]	Alternatives A	B-Mod	C-Mod	F	I-Preferred
1 General Forest	N/A	1,768	1,762		1,825	1,825
2. Rangeland		177	200		195	195
3 Riparian Areas		247	242		229	229
4A. Big-Game Winter Range						
4B. Big-Game Winter Range Enhancement						
5. Bald Eagle Winter Roost						
6A. Strawberry Mountain Wilderness						
6B. Monument Rock Wilderness						
6C. Pine Creek						
7. Scenic Area	N/A	13,322	13,322	13,322	13,322	13,322
8. Special Interest Area						
9. Research Natural Area						
10. Semi-Primitive Non-Motorized				2,875		
11. Semi-Primitive Motorized						
12. Developed Recreation						
13. Old Growth		300	300		300	300
14. Visual Corridors		66	74			
15. Unit Plan Wildlife Emphasis Areas						
16. Minimum Level Management		317	297		326	326
17. Byram Gulch Municipal Supply Watershed						
18 Long Creek Municipal Supply Watershed						
19. Administrative Sites						
20. Wildlife Emphasis Areas with Scheduled Harvest						
21. Wildlife Emphasis Area Non-Scheduled Harvest						
22. Wild and Scenic River						
TOTAL ACRES	N/A	16,197	16,197	16,197	16,197	16,197

1/The Timber Management Plan, upon which the No Change Alternative is based, was developed in 1979. The plan was not an integrated plan and, consequently, did not address all resource uses and outputs in an integrated manner. As a result, these acreages are not available.